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LAZAROA 24: 3-5. 2003

ISSN: 0210-9778

Four lichen species new to Spain

Ana Crespo (*), Eva Barreno (**), Leopoldo G. Sancho (*), Ana Pintado (*) & H. Thorsten Lumbsch (***)

Resumen: Crespo, A., Barreno, E., Sancho, L. G., Pintado, A. & Lumbsch, H. Th. *Cuatro especies nuevas de líquenes en España. Lazaroa 24: 3-5 (2003).*

Se presentan cuatro nuevas citas de líquenes de España, concretamente *Aspicilia moenium, Lecanora stenotropa, Vezdaea leprosa* y *Xanthoparmelia plitii.* Las especies probablemente no son raras pero habían sido obviadas, bien por ser inconspicuas bien por ser similares morfológicamente a otras especies.

Abstract: Crespo, A., Barreno, E., Sancho, L. G., Pintado, A. & Lumbsch, H. Th. *Four lichen species new to Spain. Lazaroa 24: 3-5 (2003).*

Four species of lichens are reported as new to Spain, namely *Aspicilia moenium, Lecanora stenotropa, Vezdaea leprosa* and *Xanthoparmelia plitii.* The species are probably not rare, but overlooked, since they are either inconspicuous or morphologically similar to other species.

INTRODUCTION

The flora of Spain is especially rich due to the number of various ecosystems present on the Iberian peninsula (RIVAS-MARTÍNEZ & LOIDI, 1999) and this is also true for lichens. In a recently published checklist of Spanish lichens (LLIMONA & HLADUN, 2001) more than 2.500 species were recorded. With the publication of this checklist there is now a good basis for taxonomic and floristic work on lichens in Spain. On joint field trips in central Spain in June 2003, we could collect four lichen species that were not reported earlier from Spain. The species are probably not rare, but overlooked, since they are either very small and inconspicuous or similar to other common taxa. Thus these species are briefly discussed below to draw attention to these lichens that may be found elsewhere on the Iberian peninsula. Specimens are deposited in MAF Herbarium.

RESULTS AND DISCUSSION

Aspicilia moenium (Vain.) Thor & Timdal.

La Rioja: Montenegro de Cameros, 42°05'N, 02°44'W, 850 m, on horizontal face of concrete bridge, 5-VI-2003, *H. T. Lumbsch & E. Barreno* (MAF Lich 9806).

This is a very inconspicuous lichen that commonly occurs on concrete walls and that is hardly distinguished from the substrate. It is only visible as tiny (up to 1.0 mm long), grayish-white, pruinose squamules with dark bluish-black soredia at the margins. The squamules are often appressed to the substrate and irregularly shaped. The species is usually sterile. A full description (as its synonim *Aspicilia excavata* Thor & Timdal) is given by Thor & Timdal (1986), who also give excellent illustrations. Originally described from Finland (VAINIO, 1921), its distribution is imperfectly known. New European records continue to be noted (e.g. CRITTENDEN, 1997). It is probably a very common species in Europe and was found by one of us (HTL) on concrete walls of almost every old wall examined in the Ruhr area of Germany that is one of the most populated areas in central Europe. In North America, *A.*

* Departamento de Biología Vegetal II. Facultad de Farmacia. Universidad Complutense de Madrid. 28040 Madrid. E-mail: acrespo@farm.ucm.es, sancholg@farm.ucm.es, apintado@farm.ucm.es

** Departamento de Biología Vegetal (Botánica). Facultad de Biología. Universidad de Valencia. 46100 Burjassot (Valencia). E-mail: eva.barreno@uv.es

*** Department of Botany. The Field Museum of Natural History. 1400 Lake Shore Drive. Chicago 60605-2496. Illinois. USA. E-mail: tlumbsch@fieldmuseum.org

moenium has been reported from Colorado (WEBER, 1990, 1996) and Massachussets (LAGRECA & LUMBSCH, 2001). It mainly occurs on non-natural substrates such as mortar, concrete, and marble and is very rarely seen on natural rock outcrops.

Lecanora stenotropa Nyl.

Madrid: Rascafría, Sierra de Guadarrama, Pico de Dos Hermanas, 2200 m, on granits, 12-VI-2003, *H. T. Lumbsch, L. G. Sancho & A. Pintado* (MAF Lich 9808).

This lichen is most probably overlooked, since it is morphologically very close to *Lecanora polytropa* (Ehrh. ex Hoffm.) Rabenh., which is a common species on siliceous rocks in temperate and alpine regions. However, *L. stenotropa* differs in slighlty larger and more brownish apothecia, although this difference is sometimes difficult to observe, and narrowly ellipsoid spores (8-12 x 3-4 µm). In contrast, *Lecanora polytropa* has broadly ellipsoid to ellipsoid spores (9-15 x 4-7 µm). The morphology of this species group is very variable: both species can produce either lecanorine or biatorine apothecia. The species is cosmopolitan, known from Europe (*e.g.* PURVIS *& al.*, 1992; WIRTH, 1994), North America, and New Zealand (LAGRECA & LUMBSCH, 2001).

Vezdaea leprosa (P. James) Vezda.

La Rioja: Montenegro de Cameros, 42°05'N, 02°44'W, 850 m, on detritus at roadside, 5-VI-2003, *H. T. Lumbsch & A. Crespo* (MAF Lich 9807).

This lichen is easily overlooked, since it is inconspicuous and may be mistaken for a terricolous algae. However, it is readily distinguished by the clear grayish-green color of the thallus consisting of goniocysts. Additionally, the uniformely thick-walled asci and the cylindrical, usually simple ascospores characterize this lichen. An exhaustive description with numerous illustrations is given by Ernst (1995). The species is common in Europe and has been recorded from numerous countries (*e.g.*, BERGER *& al.*, 1998; ERNST, 1995; MOTIEJUNAIK, 2000; PALICE, 1999; SCANELL, 1983; TØNSBERG, 1990; THOR, 1993). It has also been reported from North America (BUCK *& al.*, 1999) and probably occurs in Tierra del Fuego (identity of a specimen collected by HTL is uncertain, since it is sterile).

Xanthoparmelia plitii (Gyeln.) Hale.

Zaragoza: Embid de la Rivera, 41°22'N, 01° 36'W, 510 m, on siliceous rocks, 4-VI-2003, *A. Crespo, O. Blanco & H. T. Lumbsch* (MAF Lich 9807).

Xanthoparmelia plitii is characterized by a pale to dark brown or mottled lower surface, globose to subcylindrical isidia, simple to coralloid, and the presence of the stictic acid chemosyndrome in addition to usnic acid. It is very similar to *X. tinctina* that is commonly found in the Mediterranean area, but readily distinguished by the black lower surface and dirrent type of isidia (GIORDANI *& al.*, 2002). It is probably a quite common species in central Spain.

ACKNOWLEDGMENTS

This study was supported financially by the Ministerio de Educación, Cultura y Deporte (H. T. Lumbsch SAB2001-0141) and el Ministerio de Ciencia y Tecnología (REN2002- 10793-E/GLO) for which we are very grateful. Oscar Blanco and Maria del Carmen Molina are thanked for their help in the field work.

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